

# A Syntactic and Semantic Contrast Study of Modal Expressions across Languages

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**Abstract**—In terms of linguistic typology, Chinese, English, Korean and Japanese belong to different families (Slobin, 1985; Norman, 1988; Croft, 1990; etc). How to express modality has always been a controversial topic. In regard to how to express modality, Palmer (2001, p 4) points out that there are two ways in which languages deal grammatically with the overall category of modality: the modal system and mood. Both may occur within a single language. In most languages, however, only one of these devices seems to occur or, at least, one is much more salient than the other. Although Chinese and English mainly use modal verbs, there is also a rich modality auxiliary system in Chinese, while Korean and Japanese mainly use adhesive verbs and auxiliary words to express modality. This paper takes the Chinese modal verbs (CAN group) as the representative and carries out comprehensive syntactic and semantic comparison with the counterpart modal verbs in English, and the counterpart modal expressions in Korea and Japanese. This study describes how the languages of different types express modality in different ways. The results of the study have linguistic implications for learners of Chinese who are from different first languages. It is pointed out that because the expression of modality involves subjective judgments of using language, the syntactic and semantics contrast only reveals the linguistic dimensions of the language uses.

**Index Terms**—Modal expression, language contrast, Chinese and English, Chinese and Korean, Chinese and Japanese.

## I. INTRODUCTION

The studies of mood or modality have been related to each other for centuries and can be traced back to debates in the literature of logical and philosophical studies. From the perspective of language, mood (modal, -ity) is defined as follows [1]:

Mood (“modality”, or “mode”) refers to a set of SYNTACTIC AND SEMANTIC CONTRASTS signaled by alternative PARADIGMS of the verb, e.g. INDICATIVE (the UNMARKED form), SUBJUNCTIVE, IMPERATIVE. Semantically, a wide range of meanings is involved, especially attitudes on the part of the speaker towards the factual content of the utterance, e.g. uncertainty, definiteness, vagueness, possibility. Syntactically, these contrasts may be signaled by alternative INFLECTIONAL forms of a verb, or by using AUXILIARIES.

From this definition, it can be interpreted that *mood or modality* is a common category in language, and is a combination of syntactic elements (alternative *PARADIGMS of the verb*), semantic elements (*a wide range of meanings*)

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and pragmatic elements (including *attitudes on*).

Extending this argument, meanings such as *permission, obligation, volition, possibility, necessity and prediction and so on* can be expressed in different languages by alternative PARADIGMS of the verb. While it may not be possible to easily claim universality for these aforementioned meanings, it is highly likely that substantial parts of these meanings will be shared between languages (and cultures). One consequence of this is that learners will need to discover whether, and if so, how these meanings are realized differently in a new language.

Typologically, Chinese is an isolating language with SVO syntax, non-inflectional morphology and monosyllabic-word phonology, whereas Korean is a language with agglutinative and inflectional morphology, SOV syntax, and polysyllabic-word phonology, and English is a synthetic language with SVO syntax, a number of morphemes and polysyllabic word phonology. These three types are different from each other [2]-[5].

In regard to how to express modality, Palmer [6] points out that there are two ways in which languages deal grammatically with the overall category of modality: the modal system and mood. Both may occur within a single language. In most languages, however, only one of these devices seems to occur or, at least, one is much more salient than the other.

Under this classification, both Chinese and English mainly use modal verbs, whereas Korean mainly uses verbal morphology and particles to express modality.

Another difference between the former two languages and the latter languages is the way that they express *epistemic modality* and *deontic modality*, as described [7]:

Epistemic modality and evidential modality are concerned with the speaker’s attitude to the truth-value or factual status of the proposition (propositional modality). By contrast, deontic and dynamic modality refer to events that are not actualized events that have not taken place but are merely potential (Event modality).

Chinese and English are the same in that they use the same words to express the epistemic modality and deontic modality, and the modal auxiliary words normally are grouped according to the shared or interchangeable meaning clusters.

In this study, I have selected the Chinese modal auxiliary *Neng Verb Group (NVG)*, which includes *neng, keyi, hui* and *keneng* as the major target of the study. The modal auxiliary verbs are clustered around particular semantic concepts. This *Neng Verb Group (NVG)* shares the meaning cluster of *possibility, ability and permission*. In terms of the NVG words, the meaning of *possibility* relates to the *epistemic*

modality; whereas the meanings of *ability* and *permission* belong to the *deontic* modality. For example, the Chinese modal *neng* express both an epistemic possibility and a deontic possibility. Two primary meanings of *neng* are epistemic possibility, and a deontic meaning, which roughly means “it is permissible / allowed for X to do something”. In Korean, different words or constructions are used to express *epistemic modality* and *deontic modality* separately.

In Section II, a detailed contrast between the Chinese NVG and its English counterpart the *Can Group* is made, and in Section III the modal expressions in Korean that cover the range of the Chinese NVG are summarized, as well as in Section IV the modal expressions in Japanese are discussed. These two sections will provide a view of how typologically different languages express the same category in different ways and how far from or close to Chinese the linguistic systems of the learners in this study are.

## II. THE CHINESE NVG AND THE ENGLISH CAN GROUP

In Chinese, similar to English, modal auxiliary verbs are used to express modal meanings and the basic grammatical structure is AUX+VP/AP (see examples below).

Eg 2-1: (English) I *can / will / may* come at 8 o'clock.

NP+ AUX (*can / will / may*) + VP+PP

Eg 2-2: (Chinese) Wo 8 dian *neng / hui / keyi / keneng* lai.

NP+ NP (time)+ AUX (*neng / hui / keyi / keneng*) + VP

Basically, although Chinese and English are different in many ways, they are quite close in terms of the modal expressions in the following aspects:

(1) The basic grammatical structure is AUX+VP.

(2) There are word counterparts, for example, Chinese *neng* can be roughly translated into English *can*.

(3) Modal auxiliary is one of the sub-categories of verb.

(4) There are meaning overlaps between and within members; therefore, members are always gathered as a cluster or group, which means that they are to some extent interchangeable.

However, Chinese modal auxiliary verbs, unlike English modal auxiliary verbs, do not always have to be close to the main verb. Chinese modal auxiliary verbs can also have a quite different distribution even if the category borrowed the name from the Indo-European language framework. There are syntactic differences between Chinese auxiliary verbs [8]-[11].

The information in Table I indicates that English modal auxiliary verbs are dependent words, which are used to assist the main verb to fulfill the requirements of the syntax of the sentences, such as to form the negatives and interrogatives, as well as supplying lexical meaning such as *possibility* or *willingness* to the main verb. In contrast, Chinese modal auxiliary verbs have more independent functions, which means that they can also be used as a sole verb.

Meanwhile, the semantic dimension also occupies one of the mysterious aspects of the complex relationships. The *Neng Verb Group* (NVG), for example, can be used to show the overlaps and differences between Chinese and English.

Fig. 1 is based on studies from [12]-[15]. It shows the complex relations of (1) the overlaps and differences among English modal auxiliary verb *Can Group*; (2) the overlaps and differences among Chinese modal auxiliary *Neng Verb Group*; (3) the connections and gaps between English modal

auxiliary verb *Can Group* and Chinese modal auxiliary *Neng Verb Group*.

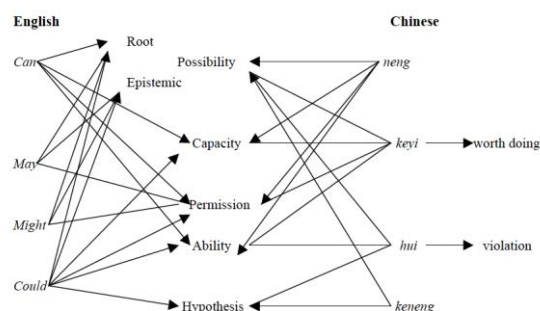


Fig. 1. Meaning potential of the Neng Verb Group in Chinese and English.

Table I is not able to provide all details, such as the factors that influence the choice between the different modals because they have meaning overlaps; whether the word or its multiple meanings are used equally. It is also a good starting point for understanding how a second language (Chinese) learner deals with them and what is his or her perception of the category. Because there is a range of possibilities, selecting the different meanings could be a complicated task.

TABLE I: THE SYNTACTIC DIFFERENCES BETWEEN CHINESE MODAL AUXILIARY VERBS AND ENGLISH ONES

| Grammatical Features |  | Chinese | English       |
|----------------------|--|---------|---------------|
| 1                    | Takes negation directly                          | √       | √             |
| 2                    | Takes inversion without DO                       | NA      | √             |
| 3                    | Code   | -       | √             |
| 4                    | Emphasis   | √       | √             |
| 5                    | Inflection                                       | NA      | √* tense only |
| 6                    | No non-finite forms                              | NA      | √             |
| 7                    | Co-occurrence                                    | √       | -             |
| 8                    | Used as sole verb                                | √*      | -             |
| 9                    | Repeated negative marker<br>bu + Aux V + bu      | √       | NA            |
| 10                   | AUX+ lexical verb                                | √       | √             |
| 11                   | AUX + lexical adjective                          | √       | -             |
| 12                   | Used as a main verb in<br>non-elliptical context | √       | -             |
| 13                   | Used independently in<br>answering question      | √       | √             |

Notes:

- (1) Features from 1 to 6 are from an English perspective.
- (2) Features from 7 to 12 are from a Chinese perspective
- (3) NA: not applicable, means the category does not exist in the language.
- (4) -: means there is the category in the language but it is not used in modal auxiliary verbs category.
- (5) \*: there are some exceptions.
- (6) Feature 3: code refers to: John can swim, so can Mary.
- (7) Feature 7: co-occurrence refers to two modal auxiliary used at the same time, e.g.: must can.
- (8) Feature 9: this structure is used to distinguish auxiliary verb with verb, and there existing a interchangeable relationship between this settled structure and single auxiliary verb, e.g. bu(not) neng(can) bu(not) means must.

## III. THE CHINESE NVG AND ITS COUNTERPARTS IN KOREAN

Korean is not the member of the same language family as Chinese. Historically Korean borrowed a large number of Chinese words and characters throughout the course of their long contacts with various Chinese dynasties. Such borrowed Chinese words and characters have become integral parts of the Korean vocabularies.

Before the 19<sup>th</sup> century when Western cultures began to

permeate East Asia, China had long been the center of East Asian culture and civilization. Thus, Chinese culture and civilization were spread to neighboring countries mainly through written Chinese, based on Chinese characters [16], [5]. As a result, the Chinese script has long been an integral part of the writing systems of some Asian countries, such as Japan, Korea.

The status of these Chinese words in Korean, which are called Sino-Korean words is similar to that of Latinate words in English. The proportion of Sino-Korean words, approximately 60% [5], is quite large compared to other foreign loan words, but the majority of these words belongs to the noun category and is used to express abstract, academic meanings rather than to be applied in the daily communicative life. However, they are integral part of Japanese and Korean vocabulary systems and convey meanings that range from being totally different to having the same meanings as Chinese.

Although the characters that are used in modern Chinese to express *permission* and *possibility* can be found in Korean, only very rarely do those characters express the same meaning as Chinese characters. Korean L2 learners of Chinese have the capacity to recognize and reproduce characters, sharing many essential aspects of notions and cultures embedded in those words. However, more concrete evidence is needed to prove the impact of Chinese characters on Korean learners of Chinese.

In that sense, from the perspective of typological distance, despite the link through Chinese characters, Korean keeps an interesting distance away from Chinese, which would have an impact on the learners of Chinese as a second language, and distinguish them from L1 English learners of Chinese.

Apart from how the languages differ from each other in terms of various aspects, including modal expressions, how the language user manipulates language to realize communication also makes another interesting connection between Chinese and Korean.

In Korean, modality elements follow the verbal stem in the form of inflectional suffixes, which denote the speaker/listener's attitude or modality toward the content of the sentences.

The basic meaning of the so-called prospective modal suffix *-(u)l (i)* is probability or predictability. The form *-(u)l (i)* occurs in quotative sentences, while the form *-(u)l* occurs in a relative clause, *-l(i)* appearing after a vowel or *l* and *-ul(i)* appearing after a consonant other than *l*.

The typical potential construction, which expresses the ability to do something, is made up of a relative clause ending in the prospective modifier suffix *-(u)l*, followed by the defective head noun *swu* "way, method, ability", an optional nominative particle, and the existential adjective *issta* "exist" (for positive potential *can*) or *epsta* "does not exist" (for negative potential *cannot*). This construction is used for learned or unlearned physical or mental ability [17].

E.g. 3-1 Halapeci-nun wuncenha-si-l swu- (ka) iss-usi-ta  
Grandpa-TC drive-SH\_PRS wat-NM exist-SH\_DC  
My grandfather can drive.

(Example from [17])

From the meaning correspondence, Korean *-(u)l swu issta* can be translated into all four Chinese NVG words, *neng*, *keyi*, *hui* and *keneng*, which are also used to express ability,

capacity, possibility and permission. *-(u)l cul alta* has the same meaning as Chinese *hui*, which means *be able to do something, have ability to do something*. It is made up by the defective head noun *cul* following the suffix- (u) l, combining verb *alta* (know) to form the whole structure [17].

E.g. 3-2 skeyitlul tal cul alta  
can skate

(Example from [17])

The typical construction for *permission* is *-eto cohta* "may", where *-eto* "even if" also functions as a conjunctive suffix and *cohta* "good" is an adjective. Instead of *cohta*, one may use the adjective *kwaynchanh (a) ta* "ok". To maintain permissive meaning, the form of the verb must be non-past [5], [17].

E.g. 3-3 ne-nun ka-to coh-ta  
You -TC go-although good-DC  
You may go.

E.g. 3-4 Yongho-num ilcick ca-to kwaynchanh-a  
-TC early sleep-though O.K INF  
I permit Yongbo to go to bed early.

(Examples from [17])

Another permissive construction is the periphrastic causative-*key hata* (*-key* "so that", *hata* "do, permit, cause") "permit, allow", which can carry permissive meaning, in addition to causativeness.

What can be found in the above descriptions is that similar meaning rubrics are expressed by different grammatical means. This can be exemplified by summarizing the fundamental syntactic differences between Korean and Chinese in the syntactic dimension. The relevant features are shown in Table II, which is my interpretation of the information presented in analyses such as those of [17] and [18].

TABLE II: SYNTACTIC DIFFERENCES BETWEEN CHINESE AND KOREAN AUXILIARIES

|    | Grammatical Features                          | Chinese | Korean |
|----|---|---------|--------|
| 1  | Takes negation marker before the Aux          | √       | -      |
| 2  | Takes negation marker after the Aux           | √       | √      |
| 3  | Expresses emphasis or tentative mood          | √       | √      |
| 4  | Inflection                                    | NA      | √      |
| 5  | Co-occurrence                                 | √       | √      |
| 6  | Used as sole verb                             | √*      | NA     |
| 7  | Repeated negative marker: bu + Aux V + bu     | √       | √      |
| 8  | Aux V+ lexical verb                           | √       | NA     |
| 9  | Lexical verb + Aux                            | -       | √      |
| 10 | Used as a main verb in non-elliptical context | √*      | -      |
| 11 | Used independently in answering question      | √       | NA     |

Notes:

- (1) NA: not applicable, means the category does not in the language.
- (2) -: means the category exists in the language but it is not used in the modal auxiliary verbs category.
- (3) \*: there are some exceptions.
- (4) feature5: co-occurrence refers to two modal auxiliary used at the same time, e.g.: must can

In brief, Chinese modal auxiliaries are more independent than Korean auxiliaries because they can be used as sole verbs and to answer questions independently. Korean auxiliaries are part of the main verb structure. Besides what can be seen from the above description, the extended

conclusion can be made that Korean modal expressions are different from Chinese modal verbs in the following aspects. Point (1) is an implication I draw from the descriptive grammar of other scholars, and Points (2) and (3) are interpretation based on my readings.

Korean shares many features, such as the various linguistic reflexes of the pervasive social and sexual stratification of society [19]. Since there is a one-to-one correlation between the segmental endings (or) suffixes and inflectional categories to assist the stem verb to realize specific function and meaning, there are fewer meaning overlaps between or among these modal items than in Chinese and English. Regarding the modal expressions, which involve the speaker’s judgment and attitude, what can be inferred is that languages such as Korean is probably more sensitive to using or not using modals because pragmatic influence is embedded in the expressions.

Korean use inflectional verbal suffixes or periphrastic expressions to express modality, which means that expression of this meaning is more dependent on the main verb.

#### IV. JAPANESE MODAL EXPRESSIONS

Japanese shares many morphological and syntactic features with Altaic languages. In terms of modal expressions, as stated [20]:

One of the distinctive characteristics of modal elements in Japanese, as opposed to English, is that constituents that follow tense markers are all considered to be in the domain of modal content. The study of modality in Japanese is thus identical to the study of modal content---that is, it is concerned with all elements that follow the tense marker *ru* or *ta*, even sentence final particles. It is not a subject of the notion of necessity and possibility; rather, it is concerned with how a speaker views the proposition. Hence, the study of modality in Japanese is quite different from the study of modality in English.

The Japanese sentence encompasses both propositional content and modal content if there is a need to express the speaker’s view, attitude or judgment about the information given in the sentence. Propositional content expresses an objective statement while modal content expresses a speaker’s subjective judgment or attitude toward the propositional [20]. However, neither Chinese nor English sentence structures exhibit a clear distinction between propositional content and modal content.

Japanese uses two ways to express modal content: 1) auxiliary verbs (*jodooshi*), such as *hazu* “must be/should be/supposed to be”, *ni chigai-nai* “must be/should be”, *daroo* “probably”, *kamoshire-nai* “maybe”, *yoo* (*mitai*) “looks like”, *soo* “appears to be/hearsay” *rashii* “seems like” and *beki* “should”; suffixes, such as expressing *permission* by *-te-mo ii* construction, *prohibition* by *-tewa ik-e-nai*, and *obligation* by *-nake-reba-nar-anai*, and sentence final particles, which are roughly equivalent in meaning and function to Chinese and English modal verbs. In that sense, modal content in Japanese involves a much wider variety of sub-categories than does Chinese.

Interestingly, Japanese epistemic modality differs from deontic modality in that epistemic modality appears in the

modal content, whereas the constructions that express deontic modality all appear in the propositional content. The syntactic behavior to express the meanings is also different.

In the range of the discussion of the Chinese NVG, in Japanese, two modal auxiliaries *daroo* (and its polite equivalent *deshoo*) and *kamshire-nai* (may be) can be used to express the judgment of possibility / probability following a proposition in modal content of the sentence. For example, *kamoshire-nai* “maybe”, expresses the lowest degree of possibility. The syntactic position is at the end of the sentence.

E.g. 4-1 Ashita wa tabun ame daroo/deshoo  
 Tomorrow TOP probably rain AUX/AUX(POL)  
 It will probably rain tomorrow.  
 (Examples from [20])

E.g. 4-2 Kare wa kyoo no kaigi ni shussekishi-nai  
 kamoshire-nai  
 He TOP today NOM meeting DAT attend- NEG AUX  
 He may not attend today’s meeting.  
 (Examples from [20])

The meaning of *permission* is represented by the *-te-mo ii* construction.

E.g. 4-3 Uchi e kaette-mo ii  
 Home LOC return-even if all right.  
 It’s all right if you go home (you may go home.)  
 (Example from [20])

Japanese language uses both use inflectional verbal suffixes and sentence inflectional suffixes to express modality. The fundamental syntactic differences between Japanese and Chinese in the syntactic dimension can be exemplified below in Table 3, which is my interpretation of the information presented in analyses such as those of [20] and [21].

TABLE III: SYNTACTIC DIFFERENCES BETWEEN CHINESE AND JAPANESE AUXILIARIES

| Grammatical Features |   | Chinese | Japanese       |                  |
|----------------------|---|---------|----------------|------------------|
|                      |   |         | Eg: taberaruru | Eg: taberudekiru |
| 1                    | Takes negation marker before the Aux          | √       | -              | -                |
| 2                    | Takes negation marker after the Aux           | √       | √              | √                |
| 3                    | Expresses emphasis or tentative mood          | √       | √              | √                |
| 4                    | Inflection                                    | NA      | √              | √                |
| 5                    | Co-occurrence                                 | √       | √              | √                |
| 6                    | Used as sole verb                             | √*      | NA             | -                |
| 7                    | Repeated negative marker: bu + Aux V + bu     | √       | NA             | NA               |
| 8                    | Aux V+ lexical verb                           | √       | NA             | NA               |
| 9                    | Lexical verb + Aux                            | -       | √              | √                |
| 10                   | Used as a main verb in non-elliptical context | √*      | -              | -                |
| 11                   | Used independently in answering question      | √       | NA             | √                |

Notes:

- (1) NA: not applicable, means the category does not in the language.
- (2) - : means the category exists in the language but it is not used in the modal auxiliary verbs category.
- (3) \*: there are some exceptions.
- (4) feature5: co-occurrence refers to two modal auxiliary used at the same time, e.g.: must can

As argued in Section III and Section IV, in Japanese “the distinction between propositional content and modal content is based on a semantic-syntactic distinction, rather than a strictly syntactic one. However, due to such syntactic behavior, problems regarding ambiguous interpretation associated with English modal auxiliaries (such as *must* and *may*) are avoided”. Since there is a one-to-one correlation between the segmental endings (or) suffixes and inflectional categories to assist the stem verb to realize specific function and meaning, there are fewer meaning overlaps between or among these modal items than in Chinese and English.

Both Japanese and Korean also share many features, such as the various linguistic reflexes of the pervasive social and sexual stratification of society (Shibatani, 1990). Regarding the modal expressions, which involves the speaker’s judgment and attitude, what can be inferred is that languages such as Japanese and Korean are probably more sensitive to using or not using modals because pragmatic influence is embedded in the expressions.

Both Japanese and Korean use inflectional verbal suffixes or periphrastic expressions to express modality, which means that expression of this meaning is more dependent on the main verb.

Based on the previous comparisons, it can be seen that these modal elements in Japanese and Korean are more like individual items, because of the bound features of the suffix, rather than a cluster of related items, as they are in Chinese and English, which use verbs or verb-like lexical items to express the modality. This difference could mean that the learner of Chinese from Korean and Japanese language backgrounds will learn Chinese modals in a different way from the learners from an English background. It provides us with a way to investigate whether the learners of Chinese acquire the Chinese modal auxiliaries as individual items or syntactic rules.

## V. CONCLUSION

The cross-linguistic descriptions in this article of the modal expressions in English, Korean and Japanese within the range of Chinese NVG words demonstrate the differences in each typologically different language, as stated [22].

In general, cross-linguistic identification cannot be accomplished on purely formal (structural) grounds for two reasons: First, variation across languages is too great... second, formal definitions are internal to the structural system of a single language... For these reasons, topologists generally use definitions... that are “external” to linguistic system, that is semantic, pragmatic or discourse-based definitions.

The study discusses the multifaceted nature of Chinese modal auxiliary verbs and, in particular, one of the sub-groups within them, the *Neng Verb Group (NVG)*. In order to demonstrate its features, comparisons have been made with the English counterparts *Can Group*, as well as with counterparts in two other languages, Korean and Japanese, which are both typologically different from Chinese.

However, the purpose of the contrast study across languages is to provide the insight to the author to look at the Chinese language learning from different L1 groups.

Within the theories in the study of second language acquisition, it is anticipated that the learner’s choice of the particular forms that are used to express specific functions is determined by a combination of language processing strategies and socio-psychological factors. The acquisition of modal auxiliary verbs is beyond the acquisition of just syntax.

In language processing, the differences of forms and meanings between Chinese and the learners’ L1s provide the possibility of looking at the acquisition patterns of modal expressions realized by the NVG words by different L1 learners. The features of group learners’ acquisition of Chinese NVG will reveal aspects of interlanguage development.

The implication arising from the comparisons between three typological languages show that there are fundamental differences in terms of multiple relationships between items and meanings. Each of the systems has complex, but not identical features to others. Therefore it is difficult to make a simple conclusion about impacts from the learners’ L1s.

At the very least, these comparisons suggest that learners with those first languages will approach Chinese with different linguistic experiences. Whether these differences will have consequences for the second language acquisition process remains to be seen.

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